

Gen 3 Intensified CCD Camera with Auto-Gating

ISA-780/1180

ITT Industries Night Vision, the world's leading producer of Generation (Gen) 3 night vision devices, offers the ISA-780/1180, a Gen 3 intensified CCD camera with auto-gating. It represents the latest in intensified low-light-level technology. The ISA-780/1180 is ideally suited for use in military operations, surveillance and security applications in which the sensor is required to operate during both low light and nighttime conditions.

Features and Benefits

- Exceptional Low-Light-Level Imaging Performance
- Compact and Rugged for Demanding Operational Environments
- Gated for Wide Dynamic Range
- Exceptional Resolution of >525 TVL
- Advanced High-Voltage Power Supply
- Bonded CCD/Intensifier Design
- Choice of Intensifier
- "C"-mount Lens Interface

ISA-780/1180



Description

With a faceplate sensitivity of 1×10^{-8} fc, the ISA-780/1180 camera delivers usable imagery under adverse lighting conditions. Dynamic range is improved through the use of an advanced gain and gating Automatic Brightness Control (ABC) to deliver high-quality images over eight decades of light levels. More than 12 decades of light control can be achieved using the appropriate auto-iris lens.

The spectral response of the ISA-780/1180 is optimized for the near-infrared area of night sky illumination. Scientific applications in the 500 – 900 nanometer range will benefit from the high sensitivity of the ISA-780/1180 when performance and resolution are critical.

Measuring only 2.625 inches high, 2.3 inches wide and 6 inches in length, the ISA-780/1180 facilitates installation in locations that would otherwise preclude a high-performance intensified CCD video camera. In addition, the case structure and internal mountings of the camera components are ruggedized and designed to withstand the rigors of demanding operational environments. The RS-170 video output and input power signals are accessed via a rear-panel-mounted I/O connector and BNC connector.

Accessories:

- ISA-UPS
110-220V Universal AC Adapter
Power Supply

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Specifications

Electrical:

- CCD Sensor 768h x 493v, (752h x 484v active)
- 18mm GEN 3/OMNI V or Pinnacle™ image intensifier options with 64 lp/mm typical resolution
- Built-in automatic brightness control (ABC) of intensifier gain, gating, and auto-iris control
- Image intensifier manual or automatic gain-limit control – rear panel selectable
- Fiber-optic minifier and intensifier bonded assembly for maximum sensitivity and mechanical stability
- One-inch TV optical input format
- Resolution greater than 525 horizontal TV lines
- Sync – internal crystal or external genlock with composite video or H&V inputs
- Auto-iris output for external auto-iris lens control
- On-camera controls
 - Selectable Gamma @ .45 or 1.0
 - Auto or manual intensifier gain limit
 - Fixed or variable Video camera gain 6 to 12dB
- Image-inhibit input for multi-frame integration

Environmental:

- Operating temperature: 0 to 50°C
- Relative Humidity: 0 to 95%, non-condensing

Mechanical:

- I/O connector – 12-pin Hirose
- Dimensions – 2.625 H x 2.3 W x 6.0 L inches
- Housing – extruded aluminum
- "C"-mount lens, one-inch format
- Weight – 31 ounces

Options:

Gen 3 Image Intensifier Tube Performance:

Model	Key Features	Tube Type	Peak Response*	Bandwidth Response	Sensitivity* @2856K	Resolution
ISA-780	Standard	OMNI V	800 nm	400-900 nm	1800 μ A/lm	64 lp/mm
	Extended Blue	OMNI V	800 nm	375-900 nm	1800 μ A/lm	64 lp/mm
ISA-1180	0.90 mm Low Halo	Pinnacle™	800 nm	500-900 nm	2000 μ A/lm	64 lp/mm
	0.75 mm Low Halo	Pinnacle™	800 nm	500-900 nm	2000 μ A/lm	64 lp/mm

*Spectral Response curves available upon request



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Specifications subject to change without notice.

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